Series: TFV001 | Month: November 2022
Supersedes all earlier TDS

UltraTech SMARTOP

FLOOR HARDENER

Dry Shake Non-Metallic Cementitious Floor Hardener



UltraTech SMARTOP is a one part ready-to-use, dry shake, non-metallic surface hardener for freshly laid concrete surfaces. Ensures hard, abrasion resistant durable surface. Improves floor resistance to scratch, oil and grease.

Areas of Application

Over interior and exterior freshly laid concrete floors of industrial and commercial spaces, warehouses, parking lots, shipping areas, garages, halls etc.

Features and Benefits

- Provides hard, abrasion resistant top surface.
- Excellent bonding to base concrete
- Non-metallic, rust free
- Improved resistance to scratch, oil & grease
- Easy to apply.
- Easy to clean & reduces maintenance and repair costs

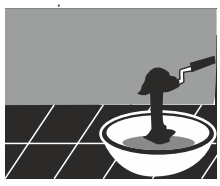
Method of Application

Surface Preparation



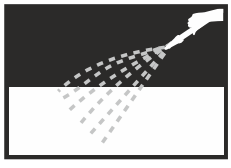
- The base concrete must be in consistent quality adhering the prescribed water/cement ratio, poured and compacted as per good concrete practices.
- Base concrete slump in the range of 75 to 110 mm will provide good results.
- Monitor early moisture loss, excess bleeding, and rapid setting around perimeter of the slab. Adhere proper timing of the floating operation.
- Application for UltraTech SMARTOP can begin after water sheen is disappeared and just before initial set, when footprints make an impression of up to 2-3 mm depth.
- Periodic inspection of concrete should be done to determine the correct time of application of floor hardener.

Application



- At correct time, UltraTech SMARTOP must be evenly spread/broadcasted in 2 spreads, 3-5 kg/m^2 (60%) in the first spread & 2 kg/m^2 (40%) in the second spread.
- Do not apply more than 5 kg/m^2 in single spread. Use of automatic spreader is recommended.
- Once the spreads have absorbed sufficient moisture (somewhat darken), the surface should be floated (power float or wooden float) to press the powder into the base concrete.
- For the final trowelling, once UltraTech SMARTOP has absorbed sufficient moisture, it can be trowelled using a wooden float or power trowel.

Curing



- Proper curing is a must either by water ponding or damp gunny bags or curing membranes as per manufacturer's recommendation

TECHNICAL INFORMATION

Parameter	Standard	Value
Appearance		Free Flowing Powder
Colour	Grey	Grey
Compressive Strength, in N/mm² @ 28 days	ASTM C109: 2021	>60 N/mm²
Bulk Density	Untapped	1670 kg/liter
Abrasion Resistance	IS 1237, ASTM D4060-14	0.84 mm
Surface Hardness	IS 13630 Part 1	8
Layer thickness at specific dosage		-
Allowable time for foot traffic		72 hrs
Fully Serviceable time		7 Days
Ambient Air Temperature		+5°C min. / +35°C max.
Relative Air Humidity		30% min. / 98% max.
Substrate Temperature		+5°C min. / +35°C max.

Consumption

Application	Consumption
Light Duty	3.5 - 4.5 Kg/m²
Medium Duty	4.5 - 5.5 Kg/m²
Heavy Duty	5.5 - 6.5 Kg/m²

Note

- SMARTOP application timing is crucial and significant. The cementitious composition of the product will be washed away by bleed or excess water if it is applied too soon, rendering application useless. If SMARTOP is applied too late, there won't be enough water or moisture for the product to penetrate the concrete. Product that has been trowelled and applied violently will eventually crack since there isn't enough moisture to moisten it.

- Extra care should be taken when applying SMARTOP at the edges of the concrete floor or at the ends of bays by sprinkling more material and completing it smoothly with a steel trowel. This is an additional layer of defence, especially for bay margins where significant impact reactions are more common.

Shelf Life

- UltraTech SMARTOP has a shelf life of 12 months from the date of manufacture. Store in a cool & dry place. Do not use the material if the packaging is damaged.

Packaging

- 25 kg Bag

Limitation & Precautions

- Do not work in sun and strong windy weathers as it risks rapid drying and rupture.
- Bleeding, slower curing and hardening can occur at high relative humidity and extended finishing operations may be required.
- Do not spread into standing bleed water or onto concrete bleeding excessively.
- Efflorescence may be seen at low relative humidity.
- The surface must be protected from rain.

Safety Directions

- UltraTech SMARTOP is non-toxic. Use of gloves and goggles is recommended. Any splashes to the skin or eyes should be washed off with clean water immediately. In case of prolonged irritation, medical advice should be sought.
- UltraTech SMARTOP is not flammable.

Other Product Categories

- Waterproofing – SEAL & DRY and WEATHER PRO
- Tile Adhesive & Tile Grout – TILEFIXO, TILEFIXO GROUT and TILEFIXO STYLE EPOXY GROUT
- Plaster & Jointing Mortar – SUPER STUCCO BASEKRETE and FIXOBLOCK
- Repair & Rehabilitation – MICROKRETE, MYKROFILL and BASEKRETE
- Industrial & Precision Grout – POWERGROUT
- Autoclaved Aerated Lightweight Concrete Blocks – XTRALITE

UltraTech CEMENT
The Engineer's Choice

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